Title of Lesson: Good Vibrations

Subject: Science

Grade Level: 3rd

Teacher: Amanda Daniele, Anna Claire, Freeman, Melissa Horton, and Karen Moede

Objective:

The student will write three facts about sound with 100 percent proficiency.

Curriculum Standards Addressed:

**Standard 3-5**: The student will demonstrate an understanding of how motion and sound are affected by a push or pull on an object and the vibration of an object. (Physical Science)

**Indicators:**

* + 1. Recall that vibrating objects produce sound and that vibrations can be transferred from one material to another.
    2. Compare the pitch and volume of different sounds.
    3. Recognize ways to change the volume of sounds.
    4. Explain how the vibration of an object affects pitch.

Prerequisites:

The students need to understand that the world is full of sounds. They need to know that sounds are produce by something and do not just exist.

Materials/Preparation:

1. Different shapes and sizes of plastic ware

2. Glass Cup

3. Pencil (Wooden)

4. Chart Paper (Large)

5. Plastic Bottles

6. Rubber bands of all shapes and sizes (especially different thicknesses)

7. Aluminum Cans

Procedures:

1. Have the class fill out a KWL chart together.

2. Ask students what they know about sound and sound vibrations. Record everything the students say under the K section of the chart.

3. Ask the students what they want to learn about sound and sound vibrations. Record everything the students say under the W section of the chart.

4. Have students get into a group of 4.

5. Pass out materials, such as rubber bands, plastic bottles, plastic ware and aluminum cans, to each group.

6. Tell the students to use the materials in any way they would like to make sound.

7. Have the students record their findings of sound and sound vibrations.

8. Discuss with the class what they learned from making sound and record what they say under the L section of the chart.

9. Use questions and demonstration to guide conversation.

Questions:

1. Did you always see vibrations when you heard a sound?

(Demonstrate that you do not always see vibrations of sound: by taking a water glass filled with water and hitting it with a wooden pencil – the sound is heard and the vibrations are seen in the ripples of the water, then drop a pencil on the ground and you will hear sound, but not see vibrations)

2. Why did we see vibrations for some of the sounds, but not others?

3. While you were experimenting did you hear multiple sounds or just one sound?

4. What do you think causes the different sounds being made?

10. Ask if anyone has any questions

11. Have the students write 3 facts about sound.

Assessment:

The student wrote 3 facts about sound with 100 percent proficiency.

Adaptions/Accommodations:

1. If a student is visually impaired, the student can feel and hear the different vibrations

2. If a student is hearing impaired, the student can see and feel the different vibrations

3. If a student has a behavior disorder, provide a step-by-step schedule of what to do during the activity.

Follow-up Lessons/Activities:

1. Watch the Magic School Bus (In the Haunted House) – This movie is all about sound and sound vibrations and would help reinforce sound concepts.

2. Provide the students with rubber bands during center time and allow them to go around the room and experiment with sound and different objects. Have the students record in their science journal what they find.

3. Allow the students to experiment with different musical instruments and record their findings in their journal.

Reflection: